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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,853	11/25/2003	Don T. Lam	42P16533	8556

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EXAMINER

RUTLAND WALLIS, MICHAEL

ART UNIT	PAPER NUMBER
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2835

DATE MAILED: 04/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/722,853

Applicant(s)

LAM, DON T.

Examiner

Michael Rutland-Wallis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
- Paper No(s)/Mail Date 11/25/2003.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

The abstract of the disclosure is objected to because it does not provide a sufficient description of the device and method claimed. Correction is required. See MPEP § 608.01(b). Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;

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- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

Claim Objections

Claims 9-11 recites the limitation "said control circuit" in line 1. There is insufficient antecedent basis for this limitation in the claim. These claims should be amended to provide proper antecedent basis.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 15-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Handforth et al. (U.S. Pat. No. 6,885,745)

With respect to claims 1 and 15-18 Handforth teaches an isolation circuit, comprising: a control circuit (item 74) to receive as input a power status signal (over

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voltage control signal see column 6 lines 35-40), said control circuit to output a switch control signal (item 112), said switch control signal to comprise a switch close signal (logic false level) if said power status is valid, and a switch open signal (logic true) if said power status is invalid; and at least one switch (item 11) to connect to said control circuit, said switch to receive said switch control signal and a component signal (transmission lines T or R) and operate in accordance with said switch control signal, with said switch to prevent communication of said component signal when said switch is in an open state.

Claim 7 is rejected under 35 U.S.C. 102(b) as being anticipated by Papa et al. (U.S. Pat. No. 6,175,490) Papa teaches a typical system with a bus (I/O Bus); a shelf having a plurality of shelf components; a management module (item 103) to connect to said bus, said management module to manage (arbitrate the bus) a plurality of signals communicated between said shelf components. Column 4 lines 10-25 Papa teaches faults in individual modules may be isolated and repaired without disrupting the operation of the remainder of the device

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-4 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Handforth et al. (U.S. Pat. No. 6,885,745)

With respect to claims 2-3 and 19-20 Handforth teaches the device of claim 1, while Handforth is not concerned with software implementation, as Handforth teaches a control circuit receives as input a signal/event signal, and said control circuit outputs said control signal in accordance with said signal/event to open or close a switch. It is held that a implementation of the hardware logic design of Handforth would be obvious to one of ordinary skill in the art to use suitable software to input signals into the controller to perform as claimed

With respect to claim 4 Handforth teaches a plurality of switches (see the switched connected on line T and Line R), each switch to connect to said control circuit, said plurality of switches to each receive said switch control signal and a component signal and operate in accordance with said switch control signal, with said plurality of switches to prevent communication of said component signals when said switch is in an open state.

Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Handforth et al. (U.S. Pat. No. 6,885,745) in view of Cowles et al. (U.S. Pat. No. 7,026,646)

With respect to claim 5 Handforth teaches the control circuit receives power from a power supply while the logic of Handforth uses opposite logic high to open the switch a suitable normally open switch would have been an obvious modification to one of ordinary skill in that art at the time of the invention in order to protect the components of

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when the controller is in an abnormal state. Cowles teaches such normally open logic see item 716 in figure 7 for example.

With respect to claim 6 Handforth does not teach the use of a N-channel MOSFET. Cowles teaches item 716 is an N-channel MOSFET used in isolation. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Handforth to use an N-channel MOSFET in order to isolate the system

Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Papa et al. (U.S. Pat. No. 6,175,490) in view of Handforth et al. (U.S. Pat. No. 6,885,745)

With respect to claim 8 Papa teaches the use of bus adapter switches to isolate component modules from the rest of the system when a fault of abnormal condition is detected in the module. Papa is silent on the detailed operation of these isolating switches and while it is held the claimed operation of claim 8 is indeed the operation of Papa's isolating switches. Handforth also provides the teaching of the claimed operation of such an isolation circuitry as that claimed in claim 8 see the rejection above to claim 1. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Papa to utilize the isolation circuitry teaching of Handforth in order to isolate faulty modules from rest of the system

With respect to claims 9-11 Papa as modified by Handforth teaches the device of claim 1, while Handforth is not concerned with software implementation, as Handforth teaches a control circuit receives as input a signal/event signal, and said control circuit outputs said control signal in accordance with said signal/event to open or close a

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switch. Pap provides the teaching that software may be used to control the operation isolation switches and detection of power. It is held that a implementation of the hardware logic design of Handforth would be obvious to one of ordinary skill in the art to use suitable software to input signals into the controller to perform as claimed

Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over in Handforth et al. (U.S. Pat. No. 6,885,745) in view of Edelen et al. (U.S. Pat. No. 6,789,871)

With respect to claim 12 Handforth teaches a plurality of switches (see the switched connected on line T and Line R), each switch to connect to said control circuit, said plurality of switches to each receive said switch control signal and a component signal and operate in accordance with said switch control signal, with said plurality of switches to prevent communication of said component signals when said switch is in an open state. Edelen also teaches a plurality of switches which are configured to receive a component signal; a control circuit item 340 couple to said plurality of switches and also provides the teaching of dual channel MOSFETs are an obvious substitute for FET relays or other type of switch therefore It would have been obvious to one of ordinary skill in the art at the time of the invention to use a dual channel MOSFET in order to reduce line resistance when the when the switch is in a closed state.

With respect to claim 13 Edelen teaches the logic of an open switch when the power is removed.

With respect to claim 14 Handforth as modified by Edelen render obvious the limitation the control signal is sent to the switch by a software control signal.


Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Duesman (U.S. Pat. No. 5,956,275) and Cowles (U.S. Pat. No. 6,861,956) teach similar devices to that of claim 1 and 15, Duesman may also be of relevance to that of the teaching of plural isolation switches.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Rutland-Wallis whose telephone number is 571-272-5921. The examiner can normally be reached on Monday-Thursday 7:30AM-6:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn D. Feild can be reached on 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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